

**Document Type:** EA-Administrative Record  
**Index Field:** Finding of No Significant Impact (FONSI)  
**Project Name:** UT Property at TRM 643.5 to  
645.2L  
**Project Number:** 2007-64

**REVISED FINDING OF NO SIGNIFICANT IMPACT**  
**TENNESSEE VALLEY AUTHORITY**  
UNIVERSITY OF TENNESSEE PROPOSED GREENWAY AND GOLF PRACTICE  
FACILITY  
KNOX COUNTY, TENNESSEE

**Background**

The University of Tennessee (UT), in partnership with Knox County and the City of Knoxville, is developing a greenway and golf practice facility on property along Fort Loudoun Reservoir in Knox County, Tennessee. In October 2007, UT requested approval under Section 26a of the Tennessee Valley Authority (TVA) Act for actions associated with the proposed greenway and golf facility, including shoreline stabilization from Tennessee River Mile 643.5 to 645.2 (left bank).

UT planned to install approximately 9,000 feet of riprap by barge to stabilize the shoreline and to protect archaeological resources, which front a tract of UT property. Original plans called for rock, delivered by barge, to be placed on the shoreline by a barge-mounted crane or trackhoe. However, after completing approximately 3,000 feet of bank stabilization, UT determined that installing riprap from barge-mounted equipment was no longer possible due to inadequate water depths and the presence of wide mudflats along the shoreline. UT now proposes to install riprap from the bank. Under the revised proposal, rock would be delivered to the site by barge. A span would be placed between a moored work barge and the bank at four sites along the shoreline. A barge-mounted crane would offload the rock from the delivery barge and place the rock into dump trucks that would be driven over the span onto the moored work barge. The loaded trucks would then drive onto the bank and place the rock into storage containers (known as "rock boxes") on the bank. A trackhoe on the shoreline would then be used to place the riprap.

TVA prepared an environmental assessment (EA) of the original proposed project and issued a finding of no significant impact (FONSI) on March 7, 2008. These documents are incorporated by reference. Because of the changes to the method for accomplishing the proposed bank stabilization, TVA has performed additional analysis of potential effects to archaeological resources and is issuing this revised FONSI.

**Impacts Assessment**

With the exception of potential effects to archaeological resources, the potential environmental effects of implementing the revised proposal are expected to be the same as those evaluated in the 2008 EA and FONSI. Because rutting, soil compaction, and inadvertent soil disturbance by heavy equipment has the potential to disturb intact buried archaeological resources, TVA discussed feasible bank stabilization options with UT and its construction contractors. Consequently, the additional conditions of approval listed below were developed. TVA has determined that with the implementation of the revised commitments, archaeological sites 40KN045 and 40KN113 would not be adversely affected and requested concurrence from the State Historic Preservation Officer (SHPO) in a letter dated September 9, 2010 (Attachment 1). TVA consulted with the following

federally recognized Indian tribes regarding the changes to the project: Cherokee Nation, Eastern Band of Cherokee Indians, United Keetooway Band of Cherokee Indians in Oklahoma, The Chickasaw Nation, Choctaw Nation of Oklahoma, Jena Band of Choctaw Indians, Mississippi Band of Choctaw Indians, Muscogee (Creek) Nation of Oklahoma, Alabama-Coushatta Tribe of Texas, Alabama-Quassarte Tribal Town, Kialegee Tribal Town, Poarch Band of Creek Indians, Thlopthlocco Tribal Town, Seminole Nation of Oklahoma, Seminole Tribe of Florida, Absentee Shawnee Tribe of Oklahoma, Eastern Shawnee Tribe of Oklahoma, and the Shawnee Tribe.

### **Mitigation and Special Conditions of Approval**

The 2008 FONSI listed 19 conditions of the Section 26a approval. These measures were designed to reduce the potential for adverse effects. The following additional conditions of approval would be placed on the applicant to protect archaeological resources:

1. All stabilization work will be conducted when the ground is dry and firm.
2. No bank shaping will occur, and all vegetation will be cut mechanically 4 to 6 inches above the ground surface.
3. Within Area 1 (the area between shovel tests S8 and H7), any equipment used for the delivery and installation of riprap must remain on mats at all times.
4. Area 2 (the area between shovel tests O8 to H7 and C7 to A6) must be double-matted (i.e., one mat placed directly on top of the other).
5. No rutting may occur in Areas 1 and 2. All watering on the adjacent golf course will cease seven days before any work begins in this area.
6. Any ground disturbance (rutting) shall not exceed 8 inches in depth outside of Areas 1 and 2.
7. A UT Archaeological Research Laboratory archaeologist will be present to monitor all work. A daily status brief will be sent to TVA Cultural Compliance via e-mail.
8. The archaeologist monitoring the work and the contractor must retain in the field a copy of the plans for the revised commitments and map.

### **Conclusion and Findings**

With the exception of potential effects to historic resources, which would be avoided under the revised proposal, TVA has determined that the environmental review conducted in 2008 adequately addresses the potential environmental effects of UT's revised proposal. TVA would impose additional conditions in its Section 26a approval to reduce or avoid adverse effects to historic resources. The Tennessee SHPO has concurred with TVA's determination that the proposed project would have no adverse effect on historic properties (Attachment 2). Thus, the requirements of Section 106 of the National Historic Preservation Act are satisfied.

TVA concludes that approval of the applicant's proposed actions and the subsequent construction and operation of the planned facilities would not be a major federal action

significantly affecting the quality of the environment. Accordingly, an environmental impact statement is not required.



October 28, 2010

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Susan J. Kelly, Senior Manager  
Federal Determinations  
Environmental Permits and Compliance  
Tennessee Valley Authority

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Date Signed

**Attachments**

1. Letter dated September 9, 2010, to E. Patrick McIntyre
2. Letter dated September 16, 2010, from E. Patrick McIntyre

## Attachment 1



Tennessee Valley Authority, 400 West Summit Hill Drive, Knoxville, Tennessee 37902-1499

September 9, 2010

Mr. E. Patrick McIntyre, Jr.  
Executive Director  
Tennessee Historical Commission  
2941 Lebanon Road  
Nashville, Tennessee 37243-0442

Dear Mr. McIntyre:

TENNESSEE VALLEY AUTHORITY (TVA), UNIVERSITY OF TENNESSEE (UT) SHORELINE STABILIZATION, KNOXVILLE, KNOX COUNTY, TENNESSEE

As we discussed in our previous consultation with your office, UT requested a permit from TVA to install approximately 9000 feet of riprap, by barge, to stabilize the shoreline and protect archaeological resources fronting a tract of UT property. The project area is located on Fort Loudoun Reservoir in Knox County, Tennessee (between Tennessee River Mile 643.4 and 645.1L). TVA, in consultation with your office, placed commitments on the installation of the proposed riprap (enclosed letter dated October 30, 2007). Approximately 3000 feet of the stabilization has been completed under these commitments.

TVA was notified by UT's engineer that they were unable to continue placing riprap from the water because the contractor's track hoe had sunk into the shoreline at two different locations (see enclosed photo). No archaeological monitoring was conducted during the track hoe's use. On June 25, 2010, TVA received a revised outline of procedures for stabilization from UT to use vehicles to install riprap from the top of the bank during summer pool. Enclosed is a copy of the proposed procedures.

A meeting was held on July 19 between UT, Southern Shores Development, LLC, MACTEC Engineering and Consulting, Inc., TVA, and your office to address the stabilization procedures and propose revisions. As you requested, enclosed is a map depicting shovel test, auger, core, and test unit locations along the remaining stretch of shoreline to be stabilized and spreadsheets containing plow zone depths and artifact densities.

Based on the discussions from our meeting on July 19 and additional field investigations, TVA is proposing the following conditions:

- All stabilization work will be conducted when the ground is dry and firm.
- No bank shaping will occur and all vegetation will be cut mechanically 4 6 inches above the ground surface.
- Area 1 (between shovel tests S8 and H7)-any equipment used for the delivery and installation of the riprap must remain on mats at all times.
- Area 2 (between shovel tests O8 to H7 and C7 to A6) must be double matted (one mat directly on top of the other).
- In Areas 1 and 2 no rutting will occur. Seven days before any work begins in this area, all watering of the adjacent golf course will cease.

Mr. E. Patrick McIntyre, Jr.  
Page 2  
September 9, 2010

- Ground disturbance (rutting) will not exceed eight (8) inches in depth outside of Areas 1 and 2.
- An ARL archaeologist will be present to monitor all work. A daily work status brief (via email) will be sent to TVA Cultural Compliance.
- The archaeologist monitoring the work and the contractor must retain in the field a copy of the plans for the revised commitments and map.

TVA is consulting with the following federally recognized Indian tribes regarding the changes to the project: Cherokee Nation, Eastern Band of Cherokee Indians, United Keetoowah Band of Cherokee Indians in Oklahoma, Muscogee (Creek) Nation of Oklahoma, Alabama-Coushatta Tribe of Texas, Alabama-Quassarte Tribal Town, Kialegee Tribal Town, Thlopthlocco Tribal Town, Seminole Tribe of Florida, Absentee Shawnee Tribe of Oklahoma, Eastern Shawnee Tribe of Oklahoma, and the Shawnee Tribe.

TVA finds that, with the revised commitments, sites 40KN045 and 40KN113 would not be adversely affected. Therefore, pursuant to Section 106, TVA seeks your concurrence on these findings and recommendations. However, if these commitments cannot be met, TVA will initiate discussions to address the adverse effects to historic properties.

If you have any questions or comments, please contact Marianne Shuler at (865) 632-2464 or [mmshuler@tva.gov](mailto:mmshuler@tva.gov).

Sincerely,



A. Eric Howard  
Federal Preservation Officer  
Cultural Compliance  
WT 11D-K

MS:IKS  
Enclosures

cc: Ms. Jennifer Barnett  
Tennessee Division of Archaeology  
1216 Foster Avenue, Cole Bldg. #3  
Nashville, Tennessee 37210

Cynthia M. Anderson, LP 5D-C  
Janet L. Duffey, LCB 1A-LCT  
Susan J. Kelly, LP 5U-C  
Khurshid K. Mehta, WT 6A-K  
EDMS, WT 11D-K

Attachment 2



**TENNESSEE HISTORICAL COMMISSION**  
DEPARTMENT OF ENVIRONMENT AND CONSERVATION  
2941 LEBANON ROAD  
NASHVILLE, TN 37243-0442  
(615) 532-1550

September 16, 2010

Mr. A. Eric Howard  
Tennessee Valley Authority  
400 West Summit Hill Drive  
Knoxville, Tennessee 37902-1499

RE: TVA, UT SHORLINE STAB/TRM 643.4-645.1L, KNOXVILLE, KNOX COUNTY

Dear Mr. Howard:

Pursuant to your request, this office has reviewed documentation concerning the revisions to plans for the above-referenced undertaking received Monday, September 13, 2010. This is a requirement of Section 106 of the National Historic Preservation Act for compliance by the participating federal agency or applicant for federal assistance. Procedures for implementing Section 106 of the Act are codified at 36 CFR 800 (Federal Register, December 12, 2000, 77698-77739).

Considering available information, we find that if all of the conditions included in your correspondence are strictly adhered to, the project, as currently proposed, will not adversely affect any property that is eligible for listing in the National Register of Historic Places. Therefore, this office has no objection to the implementation of this project. Please direct questions and comments to Jennifer M. Barnett (615) 741-1588, ext. 105. We appreciate your cooperation.

Sincerely,

E. Patrick McIntyre, Jr.  
Executive Director and  
State Historic Preservation Officer

EPM/jmb